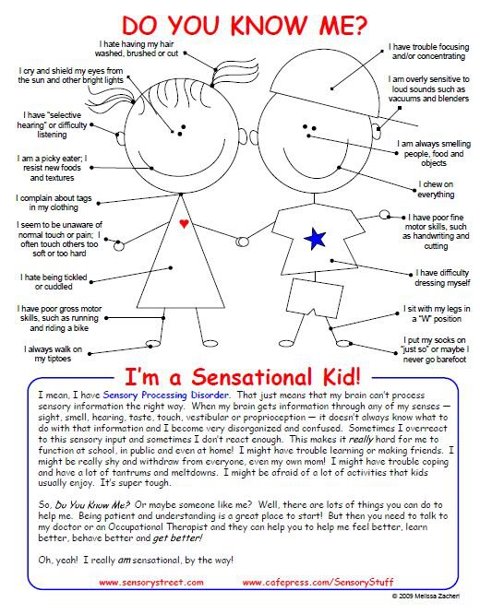
**Behavioral Issues and Sensory Processing/Integration Disorder:**

**Strategies for the Classroom**

**Deborah C. Lickey M.Ed.**

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**What is Sensory Processing?**

Sensory processing is the process by which our brain takes in sensory input (sounds, smells, sight, taste. touch, pressure, the ability to balance) and interprets this information for use. We all use this process continuously every day. People are generally aware of our five senses, but sensory processing also includes two additional senses: the vestibular system and the proprioceptive system. (Additional information about these systems is included in this article)

Typical sensory processing happens as:

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We use our sensory processing abilities for:

* Experiencing and exploring the world around us
* C:\Users\DLickey\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\8MPN7W5D\MC900056680[1].wmfSocial interactions, motor skill development
* Our ability to regulate our bodies, emotions, and reactions
* Focusing and attending in order to learn.

If this neurological process becomes disrupted somewhere in the loop of **intake, organization or output**, then normal development and adaptive responses will not be achieved. As a result, learning, physical and social-emotional development, as

well as behavior will be impacted. Sensory defensiveness can prevent a child from play, exploration, and interactions critical to learning and social interactions

Children with a sensory disorder don’t experience the world in the way that typical children do. What typical children might think of as a neutral or pleasant tactile experience, such as the feeling of clothing on their bodies, can be genuinely irritating or painful to children who are **hyper** sensitive to touch. Conversely, children who are **hypo** sensitive to touch do not receive enough sensory feedback/input from their tactile system. These children might not be aware of food on his/her face or handle crayons too roughly, breaking them unintentionally.

These differences in how children perceive sensory stimuli can result in behaviors to either avoid these sensations or seek them out. Often, what it interpreted as ‘behavioral issues’ is actually a result of a child’s inability to process sensory information in a typical manner. Some behaviors that are commonly seen as a result of an inability to process the world include:

* Being overly sensitive to touch, not wanting to touch certain texture or touching things too roughly
* Bumping into others, not seeming to understand ‘personal space’
* Having meltdowns when expected to transition from one activity to another or not accepting change
* Being rough with other children, materials or pets
* Withdrawing from noisy environments or being very noisy themselves
* Being seen as a ‘picky eater’ or putting everything into their mouths

Symptoms of Sensory Processing Problems:

**Tactile System:** The tactile system includes nerves under the skin's surface that send information to the brain. This information includes light touch, pain, temperature, and pressure. These play an important role in how children perceive the world. Children who have **tactile defensiveness** are sensitive to touch sensations and can be easily overwhelmed by, and fearful of, ordinary daily experiences and activities.

Many children with tactile defensiveness (hypersensitivity to touch/tactile input) will only use their fingertips (if they even DO touch certain things) when playing with sand, glue, paint, play-doh, food, glitter etc. Consequently, their play is limited, as is their ability to engage in learning experiences**.** Children may become fearful, avoid activities, withdraw, or act out as their body responds with a "fight-or-flight" response. Everyone has differences in the sensitivity to touch and pressure, however children who are experiencing processing problems may indicate so in the following ways:

***Hyper-sensitivity to Touch: (touch-avoidance behaviors)***

* Withdrawing when being touched
* Refusing to wear certain types of clothing,
* Tags on clothes can be very bothersome
* Sensitive about having his/her hair or face washed, (or face being dirty)
* Avoids getting their hands dirty (i.e., glue, sand, mud, finger-paint),
* May use just finger tips rather than whole hands to manipulate objects.
* May be sensitive about textures of foods and/or not tolerate new foods
* May not want to walk barefoot because of sensitivity to feet on grass, sand, etc.
* May avoid close contact such as hugs
* May overreact to getting bumped by others or falling down

***Hypo-sensitivity to touch****: (touch-seeking behaviors)*

* Tends to touch things roughly, has a hard time not touching others, may even hit him/herself or others
* Initiates affection frequently i.e.; gives and requests deep hugs
* ****Does not seem to be aware of messiness on face or hands, may need to be reminded often to ‘wipe your face’
* May want to chew on crunchy items, puts things in his/her mouth, or will drink fluids in excess, may ‘overstuff’ when eating
* Does not seems to notice when falling down or getting bumped
* Enjoys ‘falling’ into bean bags, beds, chairs, etc.
* Pinches or bites himself or others, pushes and bumps into objects or people intentionally
* Is very attracted to playing with sensory materials, such as water, sand, rice, mud, etc.

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**Vestibular System**: The vestibular system refers to structures within the inner ear that detect movement and changes in the position of the head and affect our sense of balance. Dysfunction within this system may manifest itself in two different ways.

 ***Hypersensitivity to vestibular stimulation****:*

* Fearful reactions to ordinary movement activities (e.g., swings, slides, ramps, inclines).
* A hesitancy to walk or crawl on uneven surfaces
* May be delayed in learning to walk
* May have difficulty in learning to climb or descend stairs
* A tendency to appear clumsy

***Hyposensitivity to vestibular stimulation:***

These children are continuously attempting to stimulate their vestibular systems.

* Actively seeks intense movement
  + Spinning
  + Swinging
  + Jumping
* Enjoys rocking
* Wants to be picked up and held upside down.

**The Proprioceptive System:**

The *proprioceptive system* involves the muscles, joints, and tendons that provide a person with a subconscious awareness of body position. The proprioceptive system provides signals that let us know what how much pressure it takes to hold a glass, where the glass is in relation to our mouth as we take a drink and how we might need to adjust our body as we complete that task.

*Some signs of proprioceptive dysfunction are*

* clumsiness,
* a tendency to fall,
* a lack of awareness of body position in space,
* Minimal crawling when young
* Difficulty manipulating small objects (buttons, snaps)
* Avoidance of ‘fine motor’ toys such as beading
* Eating in a ‘sloppy’ manner, doesn’t notice food on his/her face
* May resist new motor movement activities.
* Tends to break toys, crayons, etc. because of rough handling of materials
* Tends to ‘bump’ into other people, walls, doorways, etc.
* May handle peers roughly or get too close and push others

Children with Sensory Processing disorders may also be especially sensitive to other aspects of their sensory systems such as:

* Noise- You may notice a child putting his/her hands over his/her ears when others may find the noise level acceptable
* Smell- Children with sensory processing disorders may find smells offensive that others can easily tolerate, or have an acute sense of smell
* Visual Sensitivity- some children may be sensitive to the light, saying it hurts their eyes
* Sensitivity to cold or hot temperatures that other are able to tolerate

**The Impact of Sensory Processing Problems:**

As you can imagine, if a child has one or more of these disorders, the child may feel as if he/she is continuously being assaulted… on a daily basis. His/her ability to handle even small instances of annoyance or irritation is quite reduced, due to his/her constant struggle with ‘keeping it together.

**For example:** Imagine that the stereo is turned up all the way, you were dressed in burlap, with shoes that were too tight, there was something very smelly in the trash, lights were flickering on and off around you, and someone had just twirled you around 5 times… now imagine being in that state for 15 minutes…now imagine being in that state all the time…what might your reaction be to someone who told you to ‘just pay attention’ or ‘calm down!’?

While all children (and adults) have some sensitivity in these areas, the children that deal with many processing problems must have those sensitivities respected in order to be able to self-regulate and calm their body and senses well enough to learn.

Think about the strategies that you use:

Do you:

Eat crunchy foods, chew gum, bite your nails, chew on pens?

Bounce your leg when sitting, twirl your hair, wiggle your foot, roll your neck, rock back and forth, fidget with your watch or jewelry, need quiet to work…or need music? Do you prefer low lights or bright lights, do fluorescent lights bother you?

Teachers can also employ many strategies to help these children integrate their senses through sensory processing activities as well as use strategies to modify the environment so that children do not feel so overwhelmed by these disorders.

**Strategies for Children with Sensory Processing Disorders**

If a child is having a significant number of symptoms related to his/ he sensory processing, he/she should be seen by a doctor and will usually be referred to an Occupational Therapist, who is able to best assess the child and offer treatment.However, the classroom teacher can also provide many opportunities for children to attain the stimulation or the calming that they need in order to stay self-regulated. Some suggestions are listed below.

**Proprioceptive Strategies:**

For children who demonstrate touch-seeking behaviors: (hypo-sensitive)

* Keep ‘fidget toys’ handy. Fidget toys can be hand exercisers, stress balls, textured balls, ‘doodles’ and other hand-held items can help with fidgeting, especially at circle time. Oftentimes, you may hear adults comment that if you use these fidget toys all the children will want one. At first that may be true, but given the opportunity to use the materials appropriately, children will generally only use what they find helpful.
* Provide lots and lots of different sensory materials in sensory bins: sand, rice, leaves, pebbles (if they are old enough not to put them in their mouth) water, etc. Sensory bins are also helpful for children who display touch-avoidance behavior because it allows children to get input at their own pace and build up their tolerance level for touch.
* Two footprints, covered with contact paper, can be put on the floor for jumping or stomping
* Two handprints, covered with contact paper, can be placed on a wall as a deep pressure "push place"
* Provide Deep pressure: Use a towel or rug to roll up the child as a **hot dog or taco** (be aware of the child’s tolerance of this activity, some children may feel it is too confining) Most children will love it and you will have quite a line waiting for a turn to be a ‘hot dog’. Once rolled up you can apply pressure on the child’s body, saying you are putting on ketchup, mustard or chili
* Wagons or other heavy items, used for pushing or pulling provides lots of input to muscles and is calming to children. This is often referred to as ‘heavy work’
* Provide large blocks outside to lift and carry.
* Provide children with appropriate equipment to climb on
* Provide children with a variety of seating choices, such as bean bag chairs or cube chairs. These choices will provides a calming effect because of the pressure on the body and a sense of being cozy and contained.
* Use Thera-bands to create a push-pull activity with children
* Play dough, Clay, or Thera putty provides a lot of proprioceptive input for children and provides feedback to children with touch seeking behaviors

**For children who display touch-avoidance behaviors (hyper sensitivity)**

* Create a space where the child can be alone when needed. This can be anything from a tunnel to a large cardboard box
* Teach all children in the classroom about providing each other with ‘personal’ space or a bubble around each child
* Provide the child with soft textures to touch, such as feathers, cotton balls, silky materials, especially in the dramatic play area
* Again, use sensory bins to allow children to begin to touch at their own comfort level
* When using ‘messy’ materials in the room such as finger paint or shaving cream, allow children to use an upside down paper cup or popsicle sticks instead of using his/her hands
* Allow the use of Q tips or popsicle sticks when using glue
* Cut the tags off of clothing that seems to be irritating and inform other adults that the child actually is uncomfortable when he /she expresses discomfort with certain clothing.
* Provide children with their own spot to sit on during circle time

## Vestibular Strategies:

For children who are **Hypo-sensitive** to motion

* Any activity involving jumping or movement such as action songs is helpful
* Provide children who tend to want to twirl around a lot with lots of swinging opportunities
* Allow children to rock in a rocking chair or use small rocking animals
* Provide children with a sit-n-spin
* Consider keeping a small trampoline in a corner of the room for children to ‘jump out the jiggles’

For children who are **Hyper-Sensitive** to Motion:

* Create slow moving or rocking opportunities
* When using materials such as balance beams be sure to help them feel safe by offering a hand. These children may need to start off with paper taped to the floor as their ‘balance beam’
* Provide opportunities for swinging in enclosed swings or swinging very slowly
* ‘Climb’ with low equipment or offer physical support while attempting to climb
* Patience and support around new movement activities will provide these children with the confidence to move forward and take risks in movement activities

**Oral strategies**:

Chewing is helping for children who need oral feedback, you may notice these children grinding their teeth, clenching their jaw or putting ‘everything’ in their mouth” Some helpful activities include:

* ‘Chewy tubes, designed for chewing can be purchased through catalogs that pertain to speech or sensory products.
* using straws for chewing
* Providing crunchy or chewy foods such as gum, licorice whips or pretzels.
* Blowing bubbles

## Taste, smell and sound

* If you are using food as an activity, make sure there is at least one food the child likes. Be careful with cleaners, hand soaps or anything else that should not go in a student's mouth.
* Children may be very sensitive to the texture of foods, for example some children may not be able to tolerate the texture of applesauce, so be aware of those issues before requiring children to eat ‘everything’ on their plate
* Smells can be very calming, especially vanilla or lavender. Vanilla can be added to play dough to provide a calming scent
* Be aware that your perfume or cologne may irritate your student
* Allow children who are very sensitive to noise to use ear phones in order to dampen the sound, if they will tolerate using them
* Prepare children ahead of time when there will be loud noises in the environment such as fire drills or whole school assemblies



Children with sensory processing benefit greatly from routines and schedules. The use of **visual routines** and general **visual strategies** helps children with their ability to regulate themselves. As an early-childhood professional, just becoming aware of children’s sensory processing and their consequential behavior in response to sensitivity in certain areas will allow you to use your own intuition and empathy to help these children become more regulated by modifying activities or providing additional support on an ongoing basis.

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